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# Integrating Interpersonal and Small Group Oral Communication Skills into the Technical Writing Course

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ABSTRACT

By adopting methods for teaching oral skills in conjunction with writing, instructors can help students to become more competent technical communicators. Dyadic skills in interpersonal communication and group discussion, the highest priority for the technical writing curriculum, can be taught through a team writing project. Students can thus experience genuine dialogue that interfaces with their writing and can explore interaction together with the composing process. The instructor must turn the direction of each team over to its members, but must intervene to facilitate the group process, counsel students on interpersonal development, and supervise the task progress and the team composing.

Oral communication skills should be integrated into technical writing courses. Good speaking skills and knowledge of oral modes will influence our students' writing and their overall communication success. Oral skills figure in the success of most communication efforts, the well-written study may not even be read if the introductory oral presentation alienates the audience. Oral modes completely surround writing within the organization; the writer must know how to

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use oral discourse to complement writing in a unified rhetorical act; he must know how to translate from one channel to the other, exploiting each to full advantage; he must know when to shift from speaking to writing, even whether to write at all. Writing skill alone is not enough.

Oral communication skills can be integrated into technical writing courses by adopting methods for teaching writing that require students to speak and to listen and to create their written work in relationship to the surrounding oral discourse. Our students should thus become better speakers, but also better writers and more professionally competent technical communicators.

The oral modes typically performed by technical professionals are extemporaneous presentation, interviewing, informal dialogue, and group discussion. Inclusion of a chapter on oral reporting in current technical writing texts indicates that presentation is a feature in many curriculums (though often designated as just another type of report, the writing assignment merely varied by its delivery via the oral channel); also well known is interviewing, frequently taught with resume writing in college courses. However, the other dialogue forms are largely ignored in the technical writing course literature, though they are no less important oral skills to technical employees and certainly no less significant to their writing. I would like to devote this paper to the dyadic skills in interpersonal communication (face-to-face informal transactions) and small group discus-

sion (interaction among members of a group where each can talk one to one) and how they can be integrated into the technical writing curriculum.

## DIALOGUE: WHY AND HOW

Our relative neglect of simple talking and discussing has many causes, most obvious of which is our traditional stance as composition teachers that we change only writing, leaving students' speech alone. More basically, however, interaction is the most alien oral mode to us as writing specialists. This fluid, elliptical, context-bound stuff all seems very removed from the written report. The presentation, by contrast, is a performance with structure and control, and though the audience gives feedback, it is predominantly non-verbal; as in writing, the action stems from the encoder, the sender of the message. Not so with dialogue where the action is the unplanned interaction itself; the decoder, the receiver of the message, is as significant as the sender, and sending and receiving are continuous processes, both depending on and including the physical scene, and frequently bringing forth feelings and even personal problems that usually remain hidden from professional writing teachers.

Despite these obstacles, informal interaction and discussion may be the most important forms of oral discourse to incorporate into the technical writing curriculum. Dialogue is a core for all language skills: not only do the

transactional forms influence writing development, but dyadic practice can help students master many of the basics of presentational speaking. (1) On the job, however, presentation is not the highest priority anyway. Oral dialogue, the principal determinant of the communication climate in the organization, is by far the most frequent and time-consuming mode used by technical personnel; (2) and the dyadic skills are judged most significant for their career success and yet their worst deficiency. (3) Morover, written report content is often filtered through dialogue, and frequent mundane assignments are the memos, agendas, minutes, and progress reports surrounding informal exchange and conferences--translating tasks for which many entry-level technical employees are ill prepared because they lack full understanding of oral interaction and how it relates to writing. (4) Technical students, many with weak self-images as verbal performers and hostile attitudes toward discussion, need training in the face-to-face speech that will play so important a role in their professional communication.

There is little doubt that our students could benefit if dyadic skills were incorporated into the technical writing course, but if interaction is integrated into the curriculum, it must be authentic--that is, it must be real and students must be committed to it. Genuine dialogue first demands a small group where the students can freely interact with each other, experiencing honest, involved exchange (either with the teacher's limited participation, observation,

or absence). Full-class discussion, even under the most skillful instructor, typically becomes a sequential dialogue between a string of single students and the teacher who establishes the discourse patterns and provides the feedback.

Authentic dialogue in our classrooms also demands that the interaction be integral to the writing, the transactions forming the context for the report, as well as the vehicle upon which the writing depends. Although writing workshops and composition discussion groups provide direct experience in oral interaction, (5) no essential connection exists between speaking and completing the task; it is not a truly collaborative effort. The problem of writing the paper, after all, is an individual one for each student, the group members merely assisting as a kind of pedagogical support group. The advantage of direct oral experience in such groups is, therefore, quite limited, to say nothing of the lack of resemblance to professional writing.

## A TEAM WRITING PROJECT

A small group assignment that can foster this authentic dialogue--in which the students' real interaction among themselves fully interfaces with their written discourse--is a team-written report. (6) To accomplish a group writing task bearing some resemblance to professional project writing, the students must become involved in the team: they must all interact on a one-to-one basis; they must all participate in the working discussion sessions. The writing

depends upon their interaction, and their dialogue furnishes the content for the written language as well as its means, the context being honed through the oral dialectical process and then translated into writing.

A team writing project can thus give students the experience of genuine interaction, the most important facet of learning the oral skills. Fortunately, it is also eminently well suited to accommodating dimensions of an awareness group or communication laboratory. Rather than the incidental, trial-and-error practice of a group in a technical setting, a team project in a writing classroom can alternate involved participation in the team's activities with both detached consideration of interpersonal theory and reflection on the student's own personal experience; students' learning, embracing the expeiential, cognitive, and affective domains, can thus be educational, not merely training, certainly not blind practice. (7)

In addition to teaching writing through speech and in conjunction with it, a team-written report can usefully culminate the work of a technical writing class. Team writing requires an investigative review of the composing process through dialogue and students' comparisons of their idiosyncratic methods with a fully developed procedure and with their peers' various approaches. Team writing focuses on selected composing problems (transitions, for example) and on particular strengths and weaknesses of individual writers, encouraging students to teach and to learn from

each other in a fully engaged way. Furthermore, team writing permits students to participate in producing a lengthy, complex formal report without committing an inordinate amount of course time to it.

Despite affinities with the real-world situation where many people have a hand in the manuscript before it is finished, a team writing project is not, therefore, a rubric for professional team writing. Rather a team project gives students the opportunity to learn oral and written language together through their integrated performance, and it gives them the freedom to explore the dynamics of interaction and composing, as well as their own participatory roles in these processes. The team project is the structure for their discovery process, for learning that is integral with their multi-faceted experience of language, with their human interdependence, and with their own inner experience and feelings (8)

Setting up such a team writing project is an ambitious undertaking for composition instructors. Therefore, on the basis of our experience developing this curriculum for engineering students at Wayne State University, I would like to suggest some strategies for integrating team writing into a technical writing course. (9) First, I will note the "Concepts of Team Interaction," the basic principles to help prepare students for group work; second, I will briefly describe "setting Up the Team Projects," forming groups and initiating assignments; and third, I will discuss "Intervention in the

Team Process," the functional roles of the instructor in teaching this group activity.

## CONCEPTS OF TEAM INTERACTION

To gain the full benefit from group work, students should be presented with some principles about interaction and small groups, whether in readings, lectures, films, discussion, or exercises. (10) These principles then can be assimilated into the teams' experience, the focal point of the project. Introduction of the oral concepts correlates well with the groups' first meetings; the ideas have immediate relevance during that uncertain period when members are becoming acquainted, jockeying for positions, and arranging practical details. Playing a group game or two at this point can exemplify specific concepts, but can also assist the group in launching its interaction; a simple 10-minute building competition among teams can encourage group cohesiveness, for example. (11) As the students become involved, the consideration of theory and procedures can be elaborated accordingly, with teams comparing notes in class discussion. However, eventually the issues become most salient in the complex, concrete experience of each team, so in a more private arena the members can shift to reflecting upon their own group's interaction.

Although the principles of interpersonal communication and discussion cannot be surveyed here, I would like to

indicate the central concepts essential for technical students embarking on team writing. First of all, students should focus on the basic interaction between each two members as a continuous, circular process in which sender and receiver play both roles, each constantly adapting to the other. In this interaction the transmission is through words, their delivery, and, most strongly, the non-verbal signs that accompany them, especially facial cues; however, the reception skills are as significant for successful communication. Noise in the system reducing the communication can come from any element in the persons or the environment, as by a participant responding critically. Conversely, the group members can practice certain behaviors, such as positive feedback with their eyes, that will increase communication. To be satisfactory to both participants, the interpersonal relationship must allow them to feel involved, to have some control or power, and to feel acceptance or friendship. (12)

Secondly, students should examine the small group as the structural framework for the oral interaction among all the members, and for how the group process itself is a unique, powerful method for doing work. Rather than prescriptions, students need to learn how the team interaction process actually operates; they should explore the interdependence of the social and task factors, the necessity for confronting social problems, the various stages of the process (particularly recognizing the function of conflict),

the methods of decision making (the spiral model of development, for example), typical group behavior patterns (such as withdrawal and shifting attention spans), operation of norms and networks of interaction, the emergence of group cohesiveness and leadership, and the roles individuals can play. Knowing and accepting the discussion process for the inefficient, demanding, tension-producing monster it is will help to eliminate students' false expectations that lead to dissatisfactions and struggles against the group's dynamic course. More than any specific technique, this awareness of groups--together with recognition that their results are worth the high price--will help the participants to work with the process to make it as effective and efficient as possible. (Obviously, methods to problem solve, reduce anxiety, achieve consensus, and maintain the group, as well as guidelines for individuals, can facilitate procedures.) (13)

SETTING UP THE TEAM PROJECTS

The communication concepts, enabling the students to shape their experience and to comprehend it, are turned into action in writing groups composed of from three to five members each. (Larger groups pose obstacles for student management, while they do not permit each member sufficient interaction with each other person nor full exposure to all stages of the composing.) Selecting the members of the

teams is a delicate balancing act that largely forecasts the outcome of the whole team plan, a job best assumed by the instructor but with student cooperation. Observing each student's interpersonal skills prior to the team choices, the instructor, at the time of topic and group selection, can consult with students about interests, experience, skills, anything relevant to the group's operation. Basing the decisions on this information and admittedly much guesswork, the teacher has a reasonable chance of arranging groups that will be appropriate for most of the students and that, equitably distributing both the skills and problems represented in any class, will all survive as functioning entities.

After project orientation, groups can be given a detailed assignment for a long written report pertinent to the course objectives, members' technical knowledge and interests, as well as the time and resources available. At Wayne State, the major task of the groups (averaging four engineers) during a five-week period is to write a long, formal team report, usually cast as a preliminary feasibility study to answer some question for a real-world audience with a real-world problem. Topics, selected from a round of technical briefings by the class, sometimes originate in jobs or engineering classes, but most students apply their technical expertise to very limited but real local needs, such as the feasibility of adopting microcomputer control of the university parking structures, or of using optical fibres for telephone

and computer lines in the new engineering building. In consultation with the instructor, the group determines the specific problem their report will address, their own roles, the specific purpose and the audiences for whom they will write--often addressing real persons in university or town, sometimes adapting them from the job situation, often simulating some of them. Then, they are responsible (with the engineering librarian's assistance) for locating information and for seeking any required technical guidance from engineering professors or practicing engineers.

The assignment at Wayne specifies that the team assume overall responsibility for the report production, distributing the composing functions and parts of the report equitably, with the proviso that each person be assigned a section of the report body. Working toward the final report, the students submit many intermediate assignments: papers in preparation for the final report (purpose statements, plan sheets, several drafts), papers analyzing and responding to the interaction, and papers reporting to the instructor on the project (audience analysis, progress, and meeting reports). Some items are submitted by the group as a whole, others by each member--the former acting as dry runs for the big production, the latter ensuring independent effort, allowing evaluation, and causing students to compare their responses to the same communication problem.

To accomplish their work, the teams occasionally meet in class with either the instructor's participation or

observation, and they meet in conference, both to discuss the work itself and to reflect on the process of it. (Each team member also meets privately with the teacher.) However, most of the work occurs in meetings held outside of class without the instructor--the students themselves running their own team.

There is a compelling reason for this. If students are to learn about group process, the instructor must not direct the group's actions, lead their discussions, nor assign students to these functions as teacher surrogates, but must turn the group over to them. This policy of student responsibility does not mean instructor withdrawal, of course. Our students, commuters from a wide urban area, need firm guidance to initiate meetings outside class hours, for example, but all teams face some confusions. When students wonder about leadership (despite notice that they comprise a "leaderless group"), the teacher can suggest applying some group theory by splitting and rotating positions until the leadership appropriate to the group's character emerges. In short, the students, recognizing leadership as just the first and most glaring problem, must accept responsibility to and for their team.

## INTERVENTION IN THE TEAM PROCESS

Effective learning about interaction requires that the instructor largely eschew the traditional teaching role and allow the students to run their own show. However, the

reality of student groups is that much assistance and some control is necessary for the work to get done and for members to benefit from it. The instructor must, therefore, intervene in the team writing as a facilitator and guide. To act effectively in these roles, he or she must keep abreast of each group by reading students' papers for manifestations of problems in the interpersonal and group processes, by seeking members' views of their own group process (as in a journal each student can keep to both describe and respond to his team's interaction), and by observing the dynamics of their transactions, both through direct participation and by detached analysis. Numerous systems for objectively observing and categorizing how people communicate in groups can supplement the teacher's subjective perspectives. The old war-horse method, Bale's Interaction Process Analysis, classifies each remark and non-verbal message according to the primary quality in either the social or task area (shows tension, gives opinion) and who performs it for whom. The teacher, assigning each sender and receiver a number for coding on a 12-item matrix, can thus construct an interaction profile for each group, based on analysis of the members' give-and-take. (14) When all is said and done, however, good intervention deppends most on keeping an open door for frequent consultations and always listening empathically for the unspoken messages.

Approprimately integrated into both the team and individual conferences, the instructor's intervention has three principal functions: 1) To facilitate the group process, assisting the members in dealing with the difficulties of working in a team; 2) To counsel the students on their interpersonal development, guiding their contemplation of the interaction, their own skills and objectives; and 3) To guide the composing process, consulting with the students on their writing and supervising the team's progress on the task. I would like to discuss some of the issues of intervening in these three facets of the team project, focusing in turn on the group process, students' interpersonal development, and the writing.

Intervention - Part 1. Facilitating the Group Process

Some people in groups evade responsibility; some remain passive and uninvolved; others submit work late; some enjoy bossing others around; others ramble on, antagonizing their colleagues. That is the real world of working in teams, and the classroom anticipates the students' professional experience well. However, in the classroom, most people are inexperienced, no one has authority, no one can be fired nor can they resign, everyone (at least in academia) must be evaluated, and everyone will learn more from participating in a viable group than from contemplating the ruins of a team. The

instructor should, therefore, intervene to assist the members in achieving sufficient group cohesiveness to accomplish the task.

Simple problems of ineffective communication (such as the failure of members to become involved, some students believing they can bypass the chatting and just get on with the job) can often be solved by participating as either an effective role model or catalyst to increase the interaction. Network and exchange difficulties (such as informaton is given but never integrated, or Hank only talks to Bill and Linda rarely says a word) can become clear from an objective analysis of contributions; merely learning how they are behaving is frequently sufficient for the team to ameliorate the situation. Chronic dissatisfactions that inhibit effective progress, sometimes barely intimated in non-verbal cues, may require careful probing by the instructor to uncover the causes, however. A typical suggestion that some student is not bearing his load, for example, can be a cover-up for basic role clashes. Larry, a student of mine who expressed antagonism toward his mates in private conferences, claimed to be withdrawing because of the overbearing behavior of his more lively and articulate fellows. My initial intervention, a response to others' complaints that Larry was not contributing his share, elicited through indirect questions the members' reflection on their possible roles in Larry's behavior ("Do you look at Larry when you speak to the group?" "Do you ask him questions?" "How do

you listen when he talks?"). This strategy helped Larry's group enough so that they could make headway on the job, but if indirect procedures fail, direct, full-group discussion of the issues is appropriate, especially for general obstruction of the interaction as in constant disagreements inhibiting consensus. As a last resort, the instructor can suggest that the team confront the problem on its own. Rather than a fast track to disaster, dealing with their social problems, even unsuccessfully, will strengthen a team, not weaken it. (15)

Intervention - Part 2. Counseling on the Interpersonal Development

Assessing the student's participation in the group is thus first aimed at improving the group communication so that the members can accomplish their writing. But the assessment also has another function: to help the student focus on what is happening inside of the group, on what is happening between himself and each other member, and what is happening inside of himself, so that he can improve his oral skills and grow both intellectually and emotionally as a communicator.

To shift the focus from the work to its contemplation, the instructor can ask the team collectively and individually to step back from the writing and the talking to reflect on their own behavior and the situation, and then to respond both orally and on paper. Sharing the students' reactions,

the teacher should not dictate how the group nor any single member should behave, but rather should act as a counselor by listening attentively, trying to understand individuals' perspectives, helping them to see the options available, helping them to discover new attributes of their selves, encouraging them to assess their previous roles and techniques for communication with their fellows, helping them to define strategies for fulfilling their own participation goals. (16)

Larry's team was much improved by his mates' efforts to listen and respond to him, but his own interpersonal situation was more complex. Eventually his admission of long-term anxiety toward speaking out in groups helped him to perceive that by talking softly in as few words as possible while looking at the floor, he was discouraging others from listening to his views and absorbing them into the group's position. Larry then began to try to contribute more frequently and more fully, speaking forcefully and with some eye contact, in order to reach his own immediate goal of achieving some impact on his group (thereby attenuating his anxiety and, in turn, his team's hostility) and his long-range objective of being able to confront group work with confidence.

Intervention - Part 3. Guiding the Composing Process

Effective interaction alone will not, of course, achieve the goals of the project; students need the instructor's

guidance as an advisor and consulting editor in the team composing process, but also as a monitor of the project task. Most teams need some supervision of their progress, and a few require much. Although the majority of students take good advantage of their freedom under the group framework to develop as communicators, some persons take advantage of the group for a free ride. Without taking charge, therefore, the teacher can supervise the project work through a curriculum structure that permits periodic review. Progress reports, sequential submissions of the final report, professional mechanisms like a storyboard (with an elaborated layout of all sections and jobs, plus a flow chart of deadlines) allow the instructor to intervene with suggestions for successful completion of the task, and ensure that the whole project will go forward in an orderly fashion, all hands completing each stage.

Although the very survival of some teams may depend on this supervision, the instructor's more significant purpose with the overlay of written work upon the oral dialogue is to guide the students in acting at the interface of writing and speaking, and in comprehending the implications of those actions. Students typically need assistance translating from the oral to the written channel, for example; in reporting a meeting, they need to shift to the demands of the report, organizing content not by the dialectical shape of the discussion but according to the essential needs of the reading audience, selecting detail not by the interaction's

highpoints but by the group's action and the readers' unasked questions. The intrusion of writing into the group process is not only a translation task, however, but a demonstration of how written discourse operates on the discussion, helping members to achieve the elusive consensus, to clarify the fuzzy position, to detail the approximate generalization, and to elaborate the rudimentary argument. Therefore, students are enabled to perceive the unique purposes and strengths of writing in relationship to speech, as well as the reciprocity between the composing and discussion process--writing facilitating the group interaction, dialogue helping create the written report.

Dealing with the function of dialogue in the writing process--grappling with the truism that "Committees can't write reports"--is the instructor's most prodigious job in advising a team writing project. One approach is to elaborate a team composing procedure, a frank hybrid of pedagogical and professional strategies, that can assist the students' exploration of the composing process and the role of their dialogue within it, guiding them to integrate their collaborative and individual composing acts. The team should work collectively at all points where consensus is critical, of course; a detailed outline of content, approach, and form requires group review and acceptance prior to individual drafting. However, the group should also be encouraged to work as a team to exploit interaction's potential power in the discovery process itself.

Selected discussion techniques can strongly benefit the group's achievement throughout the composing process. Brainstorming, for example, is a much more provocative tool for generating ideas in the group than in the writer's mind, and it can also be applied to such problems as the selection of organizational structures. Even more stimulating as both an invention and planning technique is simulated dialogue with the intended audience. (17) Members can role play the primary readers for each other to elicit uncovered areas and unknown questions in their readers' minds, but more significantly, to dramatize for their own experience the rhetorical situation of the report, illuminating how the written language can best convey the message to its audience.

Typically, however, the team should use their ordinary interaction to clarify, develop, evaluate, select--in sum, to shape the contents of the final written form. Upon hearing different choices or even discrepancies in their terminology, for example, members can investigate the various possibilities, eventually eliminating, selecting, and defining on the basis of their image of the readers. Thus they can integrate their discussion and composing into a true discovery process. In fact, students should be encouraged to view the interaction as a unique opportunity not only to rehearse every aspect of their written performance, but to achieve a radically new and creative answer for the written discourse. The group can create such a new option through the collaborative exchange because the members' total achievement forms

more than the sum of their individual contributions; and the group can elect this divergent, even daring possibility which the individual would likely reject, because the team context favors risk. (18) Team writing is thus a chance for each student to expand his or her repertoire of writing strategies well beyond the expectations for an individual assignment.

Within this collaborative structure in which many aspects of the composing take place by collective action, the group can divide the other components of the writing among its members, aiming for diversity and challenge for each writer rather than quality of the final paper, in other words, process not product. Certainly students can divide up information for the report's body (though delaying these commitments until all resources are covered and the overall plans are formulated), and they can parcel out all the other substantive sections and elements of the report. However, they can also profitably split up the overall composing process. Defining the stages with some guidance from the instructor, students can explore the potentialities and limitations of each aspect of the writing procedure and then assign each member to a series of tasks, such as formulating the first rough outline, revising the overall draft for formatting and numbering, and proofreading the final edited manuscript. Division of all composing functions will not only prevent students from writing separate mini-reports and slapping them together under one cover, but it will knit the

report together by insisting on the sequential process--down-playing the drafting stage (what beginning writers tend to think encompasses writing) and emphasizing both the pre-writing activities and the stages of revision and editing. While achieving some desired equitability in the work burden, division of the composing stage increases the level of involvement and the integration of the members' writing: it guarantees a true team writing project.

What actually happens in these team projects?

Most groups do interact quite well, at least eventually. They get along with one another, exchange and develop much information, do their written work competently as an ensemble, and according to their course evaluations, judge the team work valuable for their jobs and technical classes, despite complaints about the strains and time commitment. Most students benefit from the extensive interdependent practice in both oral and writing skills, and improve their self-confidence and capability for self-assessment along with their performance.

Admittedly a few individuals have tremendous problems getting along with their teams, and an occasional group never achieves sufficient cohesiveness to satisfy their writing tasks: some groups become so involved that either fighting or playing interferes with the work; others remain so uninvolved that they are never transformed into groups at all.

Despite, or perhaps even because of these difficulties, the team project, a process of self discovery in both interaction and in composing, represents some unusual learning about both writing and oral communication, developing the kind of perceptions we must usually ignore in the classroom. For the student who painfully re-evaluates his past failure to attain leadership as the barrier to his full participation in groups, growth is not only his functional competence in interaction, but his perception and acceptance of his potential value as a contributor in other roles. For the teammates who only discover the disparity in their various positions when they become palpable in the text, growth is their abrupt recognition of the interdependency of all aspects of their communication; the failure to listen to a peer and reinforce him can block the interaction and abort the ensuing written report. For the students who enjoy the dialogue as an end in itself, growth is the awareness of the necessity for writing; the pleasures of circling round the subject and immersing themselves in the social give-and-take must give way to spelling out a position. They then not only experience the enormous differences in oral and written discourse--particularly the fluidity and circularity of oral structure as opposed to the linear text--but they experience a full range of their needs for writing in the decision-making process, including the written word's power "to nail things down."

The team-written report, a fairly frequent assignment for many technical professionals, is usually avoided in the technical writing classroom, probably because motivating, instructing, and guiding students in groups is much harder than dealing with them individually. Although these drawbacks are real, they can be controlled by teacher intervention and a well-designed syllabus, and I believe that student growth in both oral and written communication warrants the trials for both student and teacher.

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